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LAND TENURE POLICY IN AFRICAN LIVESTOCK DEVELOPMENT

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An Overview

With very few exceptions, livestock development in Subsaharan Africa has had two broad policy objectives: increased animal output for market, and range conservation. Land tenure reform in some guise has often been seen as instrumental to the pursuit of these objectives. On the simplest (but most widely accepted) level, it is communal land tenure that has been pointed to as a major constraint. Thus, it is not surprising that many programs and projects have tried to introduce tenure reforms which involve, in one way or another, a reduction of multiple claims to and uses of specific grazing areas.

This tendency towards "individualization" is especially apparent in projects which emphasize range conservation. The rationale for establishment of individual rights to discrete grazing territories is often provided by (and attributed to) the "tragedy of the commons" paradigm popularized by Hardin (1968) whose rather simplified parable of what are in fact highly complex processes has frequently been taken much too literally by project planners.[1] This criticism especially applies to an uncritical adoption of Hardin's policy solution. Only under individualized tenure, Hardin argues, would the individual herder be assured that self-restraint in balancing herd size with range carrying capacity will not be exploited by the actions of other range users.

The "tragedy of the commons" paradigm found its way into African land tenure policy in remarkably explicit ways. Seretse Khama, the late President of Botswana, used the following variant of the "tragedy of the commons" in introducing the Tribal Grazing Land Policy to Botswana's parliament in 1975:

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1. Hardin recognized the danger, and his subsequent work edited with Borden (1977) more fully elaborates the multitude of intervening variables.

> Under our communal grazing system it is no one individual's interest to limit the number of his animals. If one man takes his cattle off, someone else moves his own cattle in. Unless livestock numbers are somehow tied to specific grazing areas no one has an incentive to control grazing . . . (Khama 1975).

Individual land rights have been held to promote conservation for other reasons.[2] Since a first principle of managing animal production on natural range is the establishment of appropriate herd size, some analysts see limiting the available grazing territory as an essential preliminary step to limiting animal numbers. Only then will the herder be able to comprehend the implications of running excessive numbers on what would presumably be that person's only possible range. Under open access, not only is the responsibility for range abuse shared, and thereby diluted among the community of herders, but the individual herder does not suffer in a proportionate or unique way from his or her contribution to range degradation. Also, under individual tenure, it is held, herders will become disabused of the notion that there are available pastures elsewhere when the local range is depleted.[3]

Assignment of leasehold rights to individuals or small groups is the more common approach to tenure reform. A leasehold agreement is often seen as an appropriate instrument for specifying legally binding stock limitations, usually under the rubric of the "good husbandry" conditions typical to leases for state-owned agricultural land. Stock limitations specified in leases are almost never enforced nor are they, for that matter, practicably enforceable. Reluctance or inability to invoke penalties against violations of lease agreements is attributable to the same sorts of political realities that militate against implementation of more general statutory prohibitions against resource abuse.

Individualized tenure has also been advanced as a reform that will accommodate growth policies. Two arguments are typically offered. First, circumstances that favor conservation will also favor growth, as sustained development and growth in market offtake depend in part upon the steady introduction of improved production techniques and, perhaps most importantly, a stable production environment. Both of these conditions are facilitated, it is argued, by the increased control that individual producers will have over grazing land. Second, individual rights will provide greater assurance to investors that landholders are in sufficient control of ranching assets to warrant confident extension of greater loan financing. Even though repossession of leased state land is usually not an option available to private loan institutions, a legally recognized exclusive land right by the ranching enterprise is a signal to banks

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2. We use the terms individual, private, and exclusive rights more or less interchangeably.

3. This issue has recently been applied to the Botswana case by Paul Devitt (Carl Bro 1982). That there are in fact "greener" pastures elsewhere has been the basis of traditional range use strategy. Loss of land to competing users, demographic growth, etc., have made such solutions to range degradation increasingly unviable.

and other lending agencies that the rancher has made certain entrepreneurial management commitments to commercial production.

While individualization of tenure rights has been seen as the solution for most effectively handling large herd owners in Botswana, for example, governments and projects have recognized that it is inapplicable to many livestock management situations elsewhere on the continent, and for smallholders in Botswana. There has been a growing tendency for tenure reform to specify the exclusive rights of a particular group to a definite grazing territory. The best known examples of this approach are the group ranches of Kenya and Tanzania, but the principle in one form or another is found in most Sahelian and East African project designs (see for example, Riddell 1982; Bennett 1983).

Government and project planners have cast group rights in terms that provide a legal context for corporate range investment. The data, however, indicate that many herders welcome group ranches in countries like Kenya, not because they are anxious to limit stock numbers or curtail traditional strategies, but rather because the new legal machinery gives them a less ambiguous route to follow in protecting their range from invasion by cultivators (Galaty 1980).

In point of fact, experience has shown that tenure reform has often not been an effective instrument in the pursuit of either growth or conservation policy objectives. It can be argued that the tenure reforms offered have not taken adequate account of the broad economic and ecological environment of pastoral systems or of the nature of the changes that are under way in the organization of livestock production. Some of the more salient structural aspects of pastoral production and their implications to policy are examined below, but for purposes of the present discussion of conventional tenure policy, the following observations are offered.

While tenure policies have tended to emphasize assignment of exclusive rights to discrete land areas, the circumstances of livestock production for the vast majority of cattle producers require maintenance of some form of communal tenure. In fact, in most pastoral economies, livestock production and use of grazing commons are still inseparable for two main reasons, the first of which is related to problems of herd size. The great majority of livestock holdings in Africa are small, fewer than 100 head of cattle (FAO 1975). No single production unit could capitalize a ranching operation, including water supply, with such small holdings, especially given the non-commercial orientation of many producers. Of course, the group ranch concept offers the economies of scale necessary to finance ranch development, but in most cases critical issues of asset management and herd disposition have not been successfully resolved.

Second are ecological reasons that militate against imposition of systems of individual land rights to replace communal tenure. Livestock production in semiarid savanna areas is a land-extensive enterprise, typically requiring quick response to highly variable rainfall patterns. Land tenure must take into account the variable environmental base. Hence, we should not be surprised that transience of resource use is a near universal condition as specific landed resources can normally be expected to have use value only for

limited amounts of time each season. The timing of this use will depend on type of animal, seasonal variation, and so forth, which in the Sahel, for example, results in different groups utilizing the same resource base at different times during the year. See Gallais and Boudet (1980) for a project design that explicitly tries to deal with this factor. Transiency will remain de facto an essential component of most tenure systems, if not de jure.

The transiency component means that intensity of use on any given landed resource will vary by time, space, and social group. Planning will have to come to grips with the time-thing-person relationships that make life possible in these arid rangelands. Individual tenure is not easily made compatible with regular, transhumant movements between seasonally available water supplies, especially where dry season pasture conditions are not predictable. Exclusive tenure requires, in most cases, a technical infrastructure that is not economically feasible given present and foreseeable market conditions.

The conclusion is that while the number of options for making production more efficient are severely limited, existing circumstances virtually dictate that some form of communal tenure will have to continue at the present time regardless of the tenure reforms proposed. But, we hasten to add that the existing situation, characterized by a virtual absence of grazing controls, widespread land degradation, growing impoverishment and inequality among producers, does not provide the elements of a long-term communal tenure model of great inherent promise. Furthermore, the changes affecting African pastoralism are not well dealt with by the institutional resources of traditional society. In fact, the decline of traditional management rules is but another symptom of the changes that are overtaking the pastoral sector. Thus new models of communal tenure must be designed to meet emergent circumstances of pastoral production and resource use. In the following section, several relevant aspects of the changing pastoral environment in relation to tenure policy are examined.

Transitional Economies and Tenure Policy

The economic organization of livestock production and resource management practices are changing in response to a general reorientation of household economic interests away from subsistence production and local exchange toward increasing market-oriented production and engagement with more cosmopolitan economic institutions. This process has two important implications for pastoral production.

First, resource management tends to become abusive. Especially today, herders have even less incentive to maintain or initiate agreements pertaining to resource allocation and control. The local-level institutions that traditionally have performed that function have yielded to supralocal market institutions as an important new factor in gauging production decisions. This dissolution of local-level controls is further accommodated by other phenomena that accompany rapid economic change, such as population growth, income diversification, technological changes, and, of course, development projects. The latter, including those that aim solely to reestablish ecologically sound management practices, are cast with reference to the emergent, market-oriented economic institutions.

The second key aspect of economic change is the emergence of entrepreneurship, a term used in the broadest possible sense. Simply stated, as herd ownership becomes less constrained by collective economic and managerial controls, private rather than collective benefits are maximized. Or, put another way, the economic interests of the household or herd ownership unit are pursued with increasing reference to external market institutions and commensurately less so to local social obligations. This process of increasingly autonomous decision-making reinforces the breakdown of local-level management controls.

There are three major attributes of the economic change process that are relevant to the development of tenure policy. First, the process of adjustment to the new economic reality has been a tremendously uneven one, not only among pastoral groups, but within groups as well. In fact, the highly differential character of producer adaptation and response to economic change is perhaps the single most important attribute of the change process from the tenure reform viewpoint. Greater decision-making autonomy coupled with a wider choice of technologies and product outlets has given rise to what we choose to call differential production orientations and management styles (Bennett 1982). On the most general level, "production orientation" divides along the lines of market and nonmarket production, but the actual situation is one of a broad continuum between these two extremes. "Management style" refers to the kinds of herd management and enterprise investment practices typically characteristic of each production orientation. For example, a "commercial" production orientation would normally indicate a management style characterized by relatively high capital investment in water supply and ranch infrastructure, hired labor, and fairly large herd size. A small subsistence producer, on the other hand, would probably act to minimize expenditure on the herd, given that household cash requirements might be more efficiently secured by applying limited assets and labor to other activities, perhaps involving labor migration. These distinctions are important for tenure policy because production orientation and management style indicate general tenure models appropriate to the prevalent production systems.

A second major attribute of the process of economic and structural change is its implications for local-level resource control practices, including formal and informal regulatory institutions. Recent research has led to an approach that has many appealing implications to institutional development for range conservation, buttressing traditional institutional controls over the range use practices of local herders (Horowitz 1979; Gulbrandsen 1980). Traditional institutions hold promise as broad organizational frameworks for extension and planning programs, but it is doubtful that they alone retain the essential attributes and authority necessary for achieving conservation objectives for several reasons. First, the authority of traditional institutions (as vested in chiefs, ward heads, and lineage heads) is mainly derived from the exercise of political and economic functions that have atrophied as institutions external to the traditional order have gained ascendance. As stated above, household production and labor allocation decisions are increasingly less confined by local conventions. Market conditions, external employment opportunities, and new technologies have all resulted in a fundamental reorientation of economic interest and herd management almost everywhere on the continent.

In some parts of Subsaharan Africa, such as Botswana, the process of change from traditional subsistence-oriented production toward more commercialization is well advanced, while in others, such as among the Dinka and the Nuer in the southern Sudan, it has barely begun. The Maasai and the Fulani are probably at an intermediate stage in the process. The decline of traditional authority has often been promoted by modern political elites as part of the program for nation-building, and often as a means of consolidating their own positions. Reinvesting traditional authorities with control over important land matters would be considered a step backward by most modern political leaders as well as by many herders. Finally, there has even been a tendency by some analysts to exaggerate the extent of controls formerly exercised by traditional authorities over community resource use. Those controls that were in place were tailored to the requirements and circumstances of relative resource abundance, and were largely concerned with assuring equitable access to resources by group members.

Range use has truly become a chaotic situation in many areas, and the prospects for local institutions alone maintaining control of the situation are not very good. This is happening because the processes of structural change described above imply that the relevant economic institutions affecting the production and resource use decisions of pastoralists are increasingly situated beyond the level of local exchange and redistribution networks. To be effective, resource control institutions must somehow be scaled to these new influence "jurisdictions." Typically, some measure of state-level control is necessary for the effective regulation of economic activity integrated by national markets. This is not to deny, in the least, a role for local-level institutions in the management of resources, but it does suggest that the power and authority of such bodies will probably have to be supported by, and integrated into, higher levels of state authority.

Institutions, only part of the equation, must be seen as arbiters of what is currently absent in most communal tenure situations today: a body of consistent and accepted common property law that defines the terms, conditions, and rights of access to common resources.

Arriving at effective common property law is a matter of interpreting customs and practice, combined with considerations of desirable public policy toward economic development and land use. In effect, taking into consideration both national and individual goals, common property law must be restated at the level of the nation, taking cognizance of local variations in custom and practice. The evolution and formal restatement of common property law will in most cases be a long-term process.

A third major attribute of the changes affecting pastoral production is the transitional character of the new economic and ecological relationships facing the producer at any given time, which makes for an inherently unstable policy-making environment. Producers assume fundamentally new economic and social attitudes while simultaneously attempting to retain old ones. Official institutional resources are weak and poorly defined. Rules of behavior and definitions of rights tend to be vague and uncertain. Projects themselves push objectives, production and conservation, that appear contradictory to the producer. Signals are mixed, detracting from the already weak credibility producers grant modern sector authorities.

Such problems are endemic to situations of rapid economic and social change. But the implications of inherent institutional weakness and widespread public uncertainty over resource rights regarding the efficacy of proposed tenure reforms are rarely considered. Economic change is a dynamic process, putting severe limits on the ability of usually static legal rules to maintain relevancy. This is a problem not easily dealt with under any circumstances, especially by policy planners who are faced with a multitude of trade-offs.

A Model of Tenure Policy for Pastoral Systems

The changes presently under way are characterized by divergent responses of animal producers to a changing economic environment, especially in the area of commercialization of the herd and by increasing individualization of decisions about resource use, accommodated in part by a decline in the efficacy of local-level range use controls. For reasons discussed above, grazing land is still primarily communal, as necessitated by the intrinsic requirements of smallholder animal management on low productivity range of seasonally variable carrying capacity. These characteristics of production with respect to land use require that communal tenure be retained, in one form or another, as an essential feature of most pastoral production systems. Once the necessity of communal tenure is accepted, the key policy issues center upon the design of communal tenure rules and institutions appropriate to the needs and potentialities of producers of varying production orientations and management capabilities.

A policy model which holds promise for Subsaharan Africa is summarized in figure 3.1. It should be emphasized that as a general model it is meant to be illustrative of the principles that underlie the policy relationships that are discussed below. That is, we attempt a theoretical framework for approaching the specific details of any number of tenure policy problems. The model appears to assume a large measure of spatial separation between large commercial holdings and smaller noncommercial enterprises. This, of course, is typically not the case, and a key question in most tenure reform programs will be how to tailor specific reforms for specific groups utilizing shared range. This will be difficult under the best of circumstances, and the evolution of greater spatial separation may in the long run be necessary. Also, the model applies to semiarid and arid production environments.

Tenure is treated in the model essentially as a dependent policy variable. Tenure rules and institutions normally should be scaled to the circumstances of livestock production, as indicated by the role of livestock in the household economy, and the production orientations and management styles of the producing units. The first measure is the role of livestock in contributing to the overall income requirements of the producing unit. This provides an indirect measure of the relative economic interest of the household in livestock, and the willingness (and ability) of the household to make available labor and other productive assets necessary for the adoption of certain types of tenure-dependent management practices.

"Production orientation" refers to attitude of the livestock enterprise to the market. Most herders produce both for subsistence consumption and for

FIGURE 3.1

A General Model of Tenure Policy Variables for African Pastoral Systems

ROLE OF LIVESTOCK IN HOUSEHOLD ECONOMY	PRODUCTION ORIENTATION	MANAGEMENT STYLE	TENURE	TYPE OF INSTITUTIONAL CONTROLS
		1. Large Holdings		
High reliance upon livestock sales to meet large cash needs.	Commercial production for market.	Fairly high investment in ranching operations.	**Exclusive:** ranging from private property rights to some form of leasehold.	State issues specific right via legal instrument (freehold, leasehold, etc.).
		2. Small to Medium Holdings		
High dependence upon cattle for cash and subsistence needs; and as input into other aspects of farming enterprise.	Broad continuum from essentially traditional to mainly commercial; typically cattle still important for subsistence, but small levels of planned commercial offtake achieved.	Ranges from **"traditional"** strategy of minimizing expenses to **"commercial"** willingness to undertake investments.	**Modified communal,** formal allotment to extensive group including management provisos; also indirect control over land exercised via private water rights. Group ranch model.	Supralocal board or authority allots grazing to local grazing committee, group ranch, etc. Negotiation, not strict regulation, of range use preferable.
		3. Small to Very Small Holdings		
Low reliance upon cattle as source of current income; used as form of investment and savings, but generally aspire to build up herds.	Marginal "itinerant" production; only occasional, and then unplanned cattle sales possible.	Minimal expenditure on farm operation; asset and labor short.	**Communal** use of public water supplies; cattle keeping in mixed farming areas.	Local-level agreements; extent of overgrazing limited by water availability and perhaps by land use zoning.

the market, so it is the proportional mix that is really important. A potentially useful measure for classifying mixed production units as either predominantly subsistence-oriented or predominantly commercial-oriented is whether sales are undertaken on a regular and planned basis. This would not, of course, be fail-safe, but it exemplifies the qualitative considerations that are involved in assessing changes in production orientation.

"Production orientation" is important to tenure policy for two reasons. First, the degree of production for sales indicates the general potential for undertaking private investments in water development and other range improvements. Second, production orientation provides an indirect measure of producer integration in national economic (and public) institutions, including marketing networks. These institutions provide a structure, or medium, for the conveyance of production and resource management incentives. In the absence of a reasonably high measure of producer integration, in terms of overall political and economic interdependency, it is unlikely that the supralocal land authorities necessary for the negotiation and administration of tenure rules will be effective. "Management style" is derivative of "production orientation," and is used here as a measure of the willingness and ability of producers to undertake expenditures on herding operations. It is a supplementary measure of producer reliance upon livestock and susceptibility to public incentives.

Implications for Land Tenure Policy

The large-scale commercial operations described in the first row of the model may often warrant granting of exclusive leasehold rights to qualified producers, although implementation of such a radical tenure reform should be approached with great caution as competing rights must be thoroughly adjudicated. Rights of stock movement should normally be preserved. Planning for the Tribal Grazing Land Program (TGLP) in Botswana incorporated an overestimation of the commercial orientation and management capabilities of many large holders originally believed qualified for the special rights and privileges involved in leasehold agreements. Instead of assuring a production environment conducive to the investment and improved management practices characteristic of commercial ranches, the program instead provided an opportunity for wealthy and influential large holders to claim exclusive rights to land without being obliged to make the improvements appropriate to commercial enterprise. Granting of exclusive rights to individual stockholders should be undertaken only when there is reasonable expectation that the benefits that will accrue to society, in terms of increased output, income, and improved resource guardianship, outweigh the loss of societal welfare involved in the displacement of other producers utilizing the land.

Most livestock producers fall within the category of small to medium-sized herders. Communal tenure is an essential aspect of this sector's production environment. Policy development must accept communal tenure as a given, and undertake to develop rules and promote institutions capable of making livestock production on common range work in the interests of producer welfare and environmental conservation. Policy emphases to date have not given sufficient direct attention to the problems of communal tenure.

Two elements have been suggested in the preceding section as essential elements of a workable communal tenure. First is a specific body of law governing rights and limits of access to communal resources, while second is an institutional framework for allotting land rights and policing land use. What is needed is the creation of institutions at both local and supralocal levels, the first under the control of influence of stockholders, the latter responsible for implementing range use standards and assuring equitable participation. Communal range policies would evolve out of a process of negotiation, compromise, and regulation which in the long term may lead to the reasonable satisfaction of most interests. The group ranch model is illustrative of a local-level organization broadly representative of herder interests. Though it has typically, and appropriately, been promoted by planners for its advantages as a production unit, greater attention should be given to its potential as an organization for engaging regulatory institutions in negotiations over range use standards. Supralocal bodies must be backed up by suitable administrative resources, regulatory authority, and, of course, political commitment. To be effective, any supralocal institution must enjoy a wider political legitimacy, achievable only from a general public appreciation of the need for a formal institutional role in regulating resource use. This latter requirement has probably not been adequately met anywhere in Subsaharan Africa. Establishing institutional legitimacy on matters involving the regulation of resources is perhaps the single most difficult resource development constraint.

The third group in the model presents very different policy problems. These small to very small holders typically secure only a small portion of total household income from cattle in the form of milk, blood, and only very occasional cash sale. For them, the small family herd may be an important input to other aspects of the farming enterprise and may also serve as the household's only significant form of savings.

It is just because the smallholder is so often unable to provide either the labor or the capital to manage effectively the few animals owned that special difficulties are presented. Often the very animals that cause the greatest damage and are unattended or only casually cared for belong to this category of owner. Yet at the same time, the owner is frequently incapable of providing more animal supervision. In addition, these small holdings are the only secure form of "wealth" possessed by this lower stratum of the pastoral community. In the aggregate, the number of animals on the African range belonging to this category is substantial, and unless we address the property rights involved, there is little hope of effective management. The land rights of smallholders are probably best provided in the framework of relatively sedentary mixed farming areas. These areas need to be identified and secured for smallholders as a first step in any tenure reform program.

Conclusions

In most pastoral production areas of Subsaharan Africa, communal tenure makes economic and ecological sense. Though communal tenure systems throughout the continent are undergoing severe stress in the face of rapid economic and institutional change, individualization of rangeland will only in the rarest cases solve the problems characteristic of communal tenure systems today.

At the same time, establishment of communal tenure systems that accommodate growth, conservation, and equity objectives presents formidable challenges. In any given situation, analysts must be prepared to assess rigorously the environment of livestock production and producer decision-making in terms of what it implies for land tenure, producer cooperation, and forms of administrative regulation. Though traditional institutions may in some circumstances retain sufficient legitimacy to play a role in range management, the economic and political bases for traditional authority are becoming increasingly tenuous across Africa. The contemporary production environment presents several unique problems unfamiliar to traditional institutional experience.

The continuing importance of communal land use to pastoral production indicates that, over the long run, increasing attention should be given to the development of policies in the areas of common property law (including the relationship between individual and corporate rights and responsibilities as well as arrangements such as group ranching) and regulatory and community management institutions for communal land usage. These two institutional realms will provide the working rules for communal tenure. The latter area, regulatory and community management institutions, has some implications for technical assistance, for it suggests greater emphasis on approaches to resource management similar to the tradition of public lands management as known and practiced in North America (Calef 1960). This tradition, with its predominant emphasis upon the negotiation, assignment, and regulation of grazing rights to common pastures, has been remarkably absent in providing even the most general background to pasture management in Africa.

Achieving efficient administration of public, communal range will be a long and difficult undertaking. Land management agencies will become factors to be reckoned with at a rate roughly commensurate with two important developments in Africa's political economy: the economic integration of pastoralists and their livestock production into the national economies; and the public recognition of the state's legitimate interest in matters affecting the use of natural resources. The former is proceeding rapidly; the latter will be granted only grudgingly.

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